

## CLAIMS:

1. A method of generating a compressed video data stream, wherein the data stream is divided into blocks of image data, the method comprising the steps of
  - determining first quantization scales  $Q$  for respective ones of the blocks, so that the quantization scales  $Q$  are sufficiently large to realize a predetermined compression rate;
  - 5 - determining, for at least one of the blocks, whether there is a second quantization scale  $Q'$  that is larger than the first quantization scale  $Q$  for that at least one of the blocks and that results in a distortion of the at least one of the blocks that is less than or substantially equal to the distortion realized with the first quantization scale  $Q$  for the at least one of the blocks;
  - encoding the digital data stream using the second quantization scale  $Q'$  for the at least one
  - 10 of the blocks when said second quantization scale  $Q'$  exists.
2. A method according to Claim 1, the method comprising
  - computing quantized coefficients for the at least one of the blocks;
  - calculating a common divisor of at least a majority of the quantized coefficients;
  - 15 - using a product of the greatest common divisor and the first quantization scale for the at least one of the blocks to determine the second quantization scale.
3. A method according to Claim 1, the step of calculating a common divisor comprising the greatest common divisor of the at least a majority of the quantized
- 20 coefficients.
4. A method according to Claim 1, comprising
  - receiving an input video data stream wherein the blocks are encoded using the first quantization scales;
  - 25 - generating the encoded video data stream with requantized image data obtained from the input video data stream, using the second quantization scale  $Q$ .
5. An apparatus that generates a compressed video data stream, which is divided into blocks of image data, the apparatus comprising:

- a quantizer for quantizing signal values with a quantization scale Q;
  - a quantization scale controller coupled to the quantizer for controlling the quantization scale Q dependent on a required compression rate, the quantization scale controller being arranged to determine the quantization scale in successive steps,
- 5    - a first step determining first quantization scales Q for respective ones of the blocks, so that the quantization scales Q are sufficiently large to realize the compression rate,
- a second step determining, for at least one of the blocks, whether there is a second quantization scale Q' that is larger than the first quantization scale Q for that at least one of the blocks and that results in a distortion of the at least one of the blocks that is less than or
- 10    substantially equal to the distortion realized with the first quantization scale Q for the at least one of the blocks.

6.            An apparatus according to Claim 5, the second step comprising
- calculating a common divisor of at least a majority of quantized signal values computed
- 15    using the first quantization scale Q for the block;
- using a product of the greatest common divisor and the first quantization scale for the at least one of the blocks to determine the second quantization scale.

7.            An apparatus according to Claim 5, wherein the calculating of the common
- 20    divisor comprises the greatest common divisor of the at least a majority of quantized signal values.

8.            An apparatus according to Claim 5, wherein the first step is performed by extracting the first quantization scales Q from a compressed input video data stream, an
- 25    encoded video data stream being generated with requantized image data obtained from the input video data stream, using the second quantization scale Q.

9.            A computer program product including instructions for performing steps of a method as claimed in any one of claims 1 to 4.